

diameter of at least 5 inches, substantially concentric with said rotation axis and comprising a monolithic fan blade structure, said structure comprising:

- a) a plurality of blade members, having non-uniform thickness and separated into at least 18 segments disposed in an approximate double helix pattern proximate to said circumference with the blade members in alternate segments being positioned approximately parallel to each other and at an acute angle with said rotation axis, said acute angle being approximately equal and opposite said acute angle of blade members in adjacent segments; and
  - b) a plurality of at least 17 hub members supporting said blade members and defining fan blade segments; said blade members being positioned to minimize adverse effects in said discharge region of reflection of discharge generated acoustic shock waves from said blade members, and said blade members and said hub members being machined as a monolithic unit from a single block of material,
- B) a pulse power source for providing high voltage electrical pulses to said electrodes to produce electric discharges between said electrodes, at pulse rates of greater than 3,700 Hz, and
- C) one or more fan motors driving said fan at speeds of 3500 rpm or greater.

#### REMARKS

The claims have been amended to further limit the claimed invention and to distinguish the claimed invention from the referenced prior art.

Applicants have substantially limited the single independent claim to narrowly claim the